State Water Resources Control Board

UST CASE CLOSURE REVIEW SUMMARY REPORT

Agency Information

Agency Name: Orange County Environmental Health Department (County)	Address: 1241 East Dyer Road, Suite 120 Santa Ana, CA 92705
Agency Caseworker: Shyamala Sundaram	Case No.: 90UT184

Case Information

USTCF Claim No.: 3563	GeoTracker Global ID: T0605901225
Site Name: California Shipping	Site Address: 8151 Electric Avenue Stanton CA 90680
Responsible Party: Western Avenue Properties C/O Eugene Kozlowski	Address: 333 City Blvd West, Suite 1640 Orange, CA 92668
USTCF Expenditures to Date: $63,455	Number of Years Case Open: 23

URL: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605901225

Summary

The Low-Threat Underground Storage Tank (UST) Case Closure Policy (Policy) contains general and media-specific criteria, and cases that meet those criteria are appropriate for closure pursuant to the Policy. This case meets all of the required criteria of the Policy. A summary evaluation of compliance with the Policy is shown in **Attachment 1: Compliance with State Water Board Policies and State Law**. The Conceptual Site Model upon which the evaluation of the case has been made is described in **Attachment 2: Summary of Basic Case Information (Conceptual Site Model).** Highlights of the case follow:

This case is a former commercial petroleum fueling facility. The Site is currently occupied by the Albaro Shipping Company. The Site is comprised of a warehouse/office, paint booth structure, and a loading dock. The property is owned by Western Avenue Properties. An unauthorized release was reported in July 1990 following the removal of four USTs (one gasoline, one diesel, one aromatic solvent, and one glycol ether). An unspecified volume of impacted soil was excavated during the tank removal in 1990. No in-situ soil remediation or groundwater remediation has been conducted to date. Since 1990 five groundwater monitoring wells have been installed and monitored. According to groundwater data, water quality objectives have been achieved or nearly achieved for all constituents in all monitoring wells except MW-9.

The petroleum release is limited to the soil and shallow groundwater. According to data available in GeoTracker, there are no supply wells regulated by the California Department of Public Health or surface water bodies within 1,000 feet of the projected benzene plume boundary. No other water supply wells have been identified within 1,000 feet of the projected plume boundary in files reviewed. Water is provided to water users near the Site by the Golden State Water Company. The affected groundwater is not currently being used as a source of drinking water, and it is highly unlikely that the affected groundwater will be used as a source of drinking water in the foreseeable future. Other designated beneficial uses of impacted groundwater are not threatened, and it is

highly unlikely that they will be, considering these factors in the context of the site setting. Remaining petroleum hydrocarbon constituents are limited and stable, and concentrations are decreasing under natural attenuation. Corrective actions for active groundwater remediation are not necessary. Any remaining petroleum hydrocarbon constituents do not pose a significant risk to human health, safety or the environment.

Status of Closure Rationale under the Policy

- General Criteria: The case meets all eight Policy general criteria.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 1,000 feet from the defined plume boundary. The dissolved concentration of benzene is less than 3,000 µg/L, and the dissolved concentration of MTBE is less than 1,000 µg/L.
- Vapor Intrusion to Indoor Air: The case meets Policy Criterion 2a by Scenario 3b. The maximum benzene concentration in groundwater is less than 1,000 µg/L. The minimum depth to groundwater is greater than 10 feet, overlain or laterally distant away from soil containing less than 100 mg/kg of TPH.
- Direct Contact and Outdoor Air Exposure: This case meets Policy Criterion 3b. Although no document titled "Risk Assessment" was found in the files reviewed, a professional assessment of site-specific risk from potential exposure to residual soil contamination found that maximum concentrations of petroleum constituents remaining in soil will have no significant risk of adversely affecting human health. The Site is paved and accidental exposure to site soils is prevented.

Objections to Closure and Response

Objections to closure were requested from the County by email in late July; to date no response has been received.

Determination

Based on the review performed in accordance with Health & Safety Code Section 25296.10 subdivision (a), the Fund Manager has determined that closure of the case is appropriate.

Recommendation for Closure

Based on available information, residual petroleum hydrocarbons at the Site do not pose a significant risk to human health, safety, or the environment, and the case meets the requirements of the Policy. Accordingly, the Fund Manager recommends that the case be closed. The State Water Board is conducting public notification as required by the Policy. Orange County has the regulatory responsibility to supervise the abandonment of monitoring wells.

Lisa Babcock

Lisa Babcock, P.G. 3939, C.E.G. 1235

5/21/14

Date

Prepared by: Mohammed Khan, P.E.

ATTACHMENT 1: COMPLIANCE WITH STATE WATER BOARD POLICIES AND STATE LAW

The case complies with the State Water Resources Control Board policies and state law. Section 25296.10 of the Health and Safety Code requires that sites be cleaned up to protect human health, safety, and the environment. Based on available information, any residual petroleum constituents at the Site do not pose significant risk to human health, safety, or the environment.

The case complies with the requirements of the Low-Threat Underground Storage Tank (UST) Case Closure Policy as described below.[1]

Is corrective action consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations? The corrective action provisions contained in Chapter 6.7 of the Health and Safety Code and the implementing regulations govern the entire corrective action process at leaking UST sites. If it is determined, at any stage in the corrective action process, that UST site closure is appropriate, further compliance with corrective action requirements is not necessary. Corrective action at this site has been consistent with Chapter 6.7 of the Health and Safety Code and implementing regulations and, since this case meets applicable case-closure requirements, further corrective action is not necessary, unless the activity is necessary for case closure.	☒ Yes ☐ No
Have waste discharge requirements or any other orders issued pursuant to Division 7 of the Water Code been issued at this case?	☐ Yes ☒ No
If so, was the corrective action performed consistent with any order?	☐ Yes ☐ No ☒ NA
<u>General Criteria</u> General criteria that must be satisfied by all candidate sites:	
Is the unauthorized release located within the service area of a public water system?	☒ Yes ☐ No
Does the unauthorized release consist only of petroleum?	☒ Yes ☐ No
Has the unauthorized ("primary") release from the UST system been stopped?	☒ Yes ☐ No
Has free product been removed to the maximum extent practicable?	☒ Yes ☐ No ☐ NA
Has a conceptual site model that assesses the nature, extent, and mobility of the release been developed?	☒ Yes ☐ No

[1] Refer to the Low-Threat Underground Storage Tank Case Closure Policy for closure criteria for low-threat petroleum UST sites.
http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2012/rs2012_0016atta.pdf

Has secondary source been removed to the extent practicable?	☒ Yes ☐ No
Has soil or groundwater been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15?	☒ Yes ☐ No
Nuisance as defined by Water Code section 13050 does not exist at the Site?	☒ Yes ☐ No
Are there unique site attributes or site-specific conditions that demonstrably increase the risk associated with residual petroleum constituents?	☐ Yes ☒ No
Media-Specific Criteria Candidate sites must satisfy all three of these media-specific criteria: **1. Groundwater:** To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites:	
Is the contaminant plume that exceeds water quality objectives stable or decreasing in areal extent?	☒ Yes ☐ No ☐ NA
Does the contaminant plume that exceeds water quality objectives meet all of the additional characteristics of one of the five classes of sites? If YES, check applicable class: ☐ **1** ☒ **2** ☐ **3** ☐ **4** ☐ **5**	☒ Yes ☐ No ☐ NA
For sites with releases that have not affected groundwater, do mobile constituents (leachate, vapors, or light non-aqueous phase liquids) contain sufficient mobile constituents to cause groundwater to exceed the groundwater criteria?	☐ Yes ☐ No ☒ NA
2. Petroleum Vapor Intrusion to Indoor Air: The site is considered low-threat for vapor intrusion to indoor air if site-specific conditions satisfy all of the characteristics of one of the three classes of sites (a through c) or if the exception for active commercial fueling facilities applies.	
Is the Site an active commercial petroleum fueling facility? Exception: Satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required at active commercial petroleum fueling facilities, except in cases where release characteristics can be reasonably believed to pose an unacceptable health risk.	☐ Yes ☒ No
a. Do site-specific conditions at the release site satisfy all of the applicable characteristics and criteria of scenarios 1 through 3 or all of the applicable characteristics and criteria of scenario 4?	☒Yes ☐ No ☐ NA

If YES, check applicable scenarios: ☐ **1** ☐ **2** ☒ **3** ☐ **4**	
b. Has a site-specific risk assessment for the vapor intrusion pathway been conducted and demonstrates that human health is protected to the satisfaction of the regulatory agency?	☐ Yes ☐ No ☒ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that petroleum vapors migrating from soil or groundwater will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA
3. Direct Contact and Outdoor Air Exposure: The Site is considered low-threat for direct contact and outdoor air exposure if site-specific conditions satisfy one of the three classes of sites (a through c).	
a. Are maximum concentrations of petroleum constituents in soil less than or equal to those listed in Table 1 for the specified depth below ground surface (bgs)?	☐ Yes ☒ No ☐ NA
b. Are maximum concentrations of petroleum constituents in soil less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health?	☒ Yes ☐ No ☐ NA
c. As a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls, has the regulatory agency determined that the concentrations of petroleum constituents in soil will have no significant risk of adversely affecting human health?	☐ Yes ☐ No ☒ NA

ATTACHMENT 2: SUMMARY OF BASIC CASE INFORMATION (Conceptual Site Model)

Site Location/History

- This case located at 8151 Electric Avenue is a former commercial petroleum fueling facility.
- The Site is currently occupied by the Albaro Shipping Company. The Site is bounded by commercial properties to the west, north, and east; and by Electric Avenue to the south
- The Site is comprised of a warehouse/office, paint booth structure, and a loading dock. The property is owned by Western Properties Avenue. From the 1990s until 2006, California Shipping, a company specializing in the shipment of automobiles, boats and other large items occupied the Site. Historically, Diversified Chemical Corporation operated at the Site from 1979 to 1984, and BJ-Titan Services, Inc. from 1985 to 1986; both companies produced chemicals used in oil field operations. Two of the chemical ingredients, gasoline and diesel were stored in the 4 USTs that were removed in July 1990.
- Site maps showing the location of the former USTs, monitoring wells, groundwater level contours, and benzene concentrations are provided at the end of this closure review summary (modified from Block Environmental, January 2013).
- Nature of Contaminants of Concern: Petroleum hydrocarbons only.
- Source: UST system.
- Date reported: July 1990.
- Status of Release: USTs removed.

Tank Information

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active	Date
1	10,000	Gasoline	Removed	July 1990
2	10,000	Diesel	Removed	July 1990
3	10,000	Aromatic Solvent[a]	Removed	July 1990
4	10,000	Butyl Cellosolve[b]	Removed	July 1990
5	1,000	Waste Oil	Removed	August 1990

a: Contains partial ingredients benzene, ethylbenzene, xylenes, toluene, naphthalene, trimethyl benzenes
b: Glycol ether

Receptors

- GW Basin: Coastal Plain of Orange County.
- Beneficial Uses: GeoTracker lists Municipal and Domestic Supply.
- Land Use Designation: Commercial.
- Public Water System: Golden State Water Company and Metropolitan Water District of Southern California.
- Distance to Nearest Supply Well: According to data available in GeoTracker, there are no public supply wells regulated by the California Department of Public Health within 1,000 feet of the projected plume boundary. No other water supply wells were identified within 1,000 feet of the projected plume boundary in the files reviewed.
- Distance to Nearest Surface Water: There is no identified surface water within 1,000 feet of the projected plume boundary.

Geology/Hydrogeology

- Stratigraphy: The Site is underlain by sand interbedded with silty sand.
- Maximum Sample Depth: 40 feet below ground surface (bgs).

- Minimum Groundwater Depth: 9.92 feet bgs at monitoring well MW-9
- Maximum Groundwater Depth: 16.74 feet bgs at monitoring well MW-1
- Current Average Depth to Groundwater: Approximately 14 feet bgs.
- Saturated Zones(s) Studied: Approximately 10 - 36 feet bgs.
- Appropriate Screen Interval: Yes.
- Groundwater Flow Direction: Predominantly south-southwest (Block Environmental, January 2013) with an average gradient of 0.004 feet/foot.

Monitoring Well Information

Well Designation	Date Installed	Screen Interval (feet bgs)	Depth to Water (feet bgs) (12/18/2012)
MW-1	October 1990	16 - 36	14.78
MW-5	March 1994	11 - 36	14.54
MW-6	March 1994	10 - 35	14.43
MW-9	October 2005	5 - 30	10.85

Remediation Summary

- Free Product: Since 2006, free product was reported only in well MW-9 (maximum of 0.13 feet thickness and minimum of 0.01 feet thickness). Free Product in MW-9 was last reported in December 2012 to be 0.01 feet thick.
- Soil Excavation: An unspecified volume of impacted soil was excavated during tank removal in 1990.
- In-Situ Soil Remediation: No in-situ soil remediation has been conducted to date.
- Groundwater Remediation: No groundwater remediation has been conducted to date.

Most Recent Concentrations of Petroleum Constituents in Soil*

Constituent	Maximum 0-5 feet bgs [mg/kg and (date), Boring #]	Maximum 5-10 feet bgs [mg/kg and (date), Boring #]
Benzene	**48.6** (09/30/2005), MW-9	7.1 (09/30/2005), MW-9
Ethylbenzene	**486** (09/30/2005), MW-9	55.5 (09/30/2005), MW-9
Naphthalene	**933** (09/30/2005), MW-9	**197.0** (09/30/2005), MW-9
PAHs	NA	NA

NA: Not Analyzed, Not Applicable or Data Not Available
mg/kg: Milligrams per kilogram, parts per million
<: Not detected at or above stated reporting limit
PAHs: Polycyclic aromatic hydrocarbons

Most Recent Concentrations of Petroleum Constituents in Groundwater

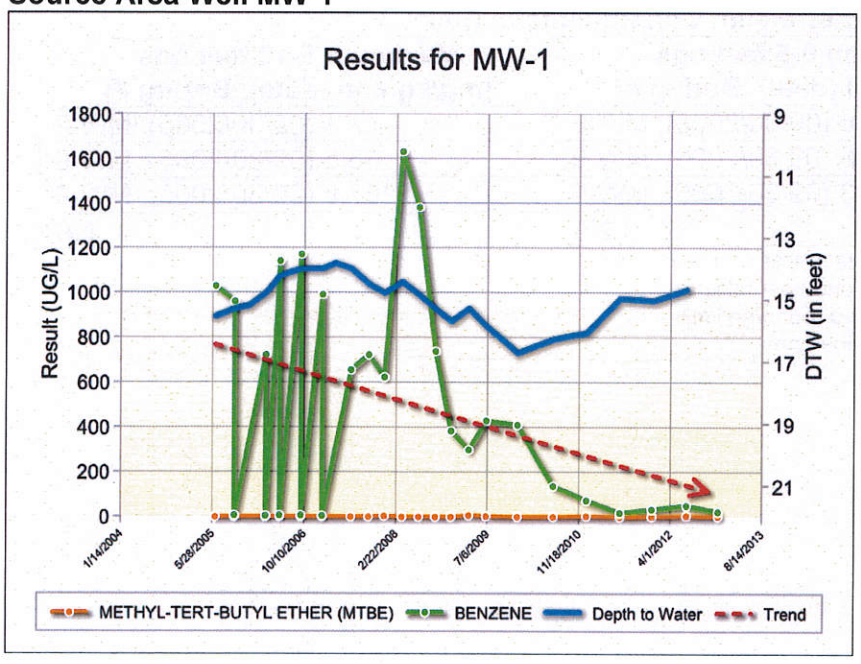
Sample	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-Benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	TBA (µg/L)
MW-1	12/18/12	**21**	82	15	60	1.7	<10
MW-5	12/18/12	<1	<5	<5	<5	<1	<10
MW-6	12/18/12	**4**	<0.5	<5	<5	**19**	<10
MW-9	12/18/12	**590**	**2,100**	**620**	**2,900**	**<20**	<200
WQOs		**1**	**150**	**300**	**1,750**	**5[a]**	**1,200[b]**

µg/L: Micrograms per liter, parts per billion
<: Not detected at or above stated reporting limit
MTBE: Methyl tert-butyl ether
TBA: Tert-butyl alcohol
WQOs: Water Quality Objectives, Santa Ana Regional Water Quality Control Board, (Regional Water Board) Basin Plan
--: Regional Water Board Basin Plan does not have a numeric water quality objective for TPHg, TPHd ,TPHo, or Naphthalene
[a]: Secondary maximum contaminant level (MCL)
[b]: California Department of Public Health, Response Level

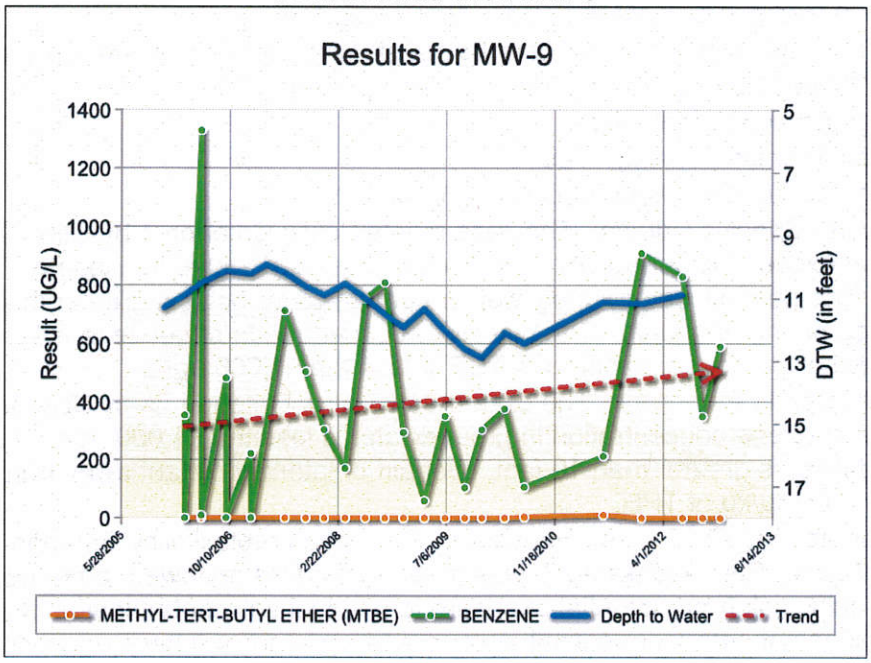
Groundwater Trends

- Regular monitoring data since September 2004 are available on the GeoTracker. Benzene, and methyl tertiary butyl ether (MTBE) trends of select wells are shown below: Benzene plume concentrations in source area wells MW-1 and MW-9 are stable. However, downgradient well MW-6 indicates a decreasing benzene trend. The projected benzene plume length is estimated to be greater than 100 feet and less than 250 feet.

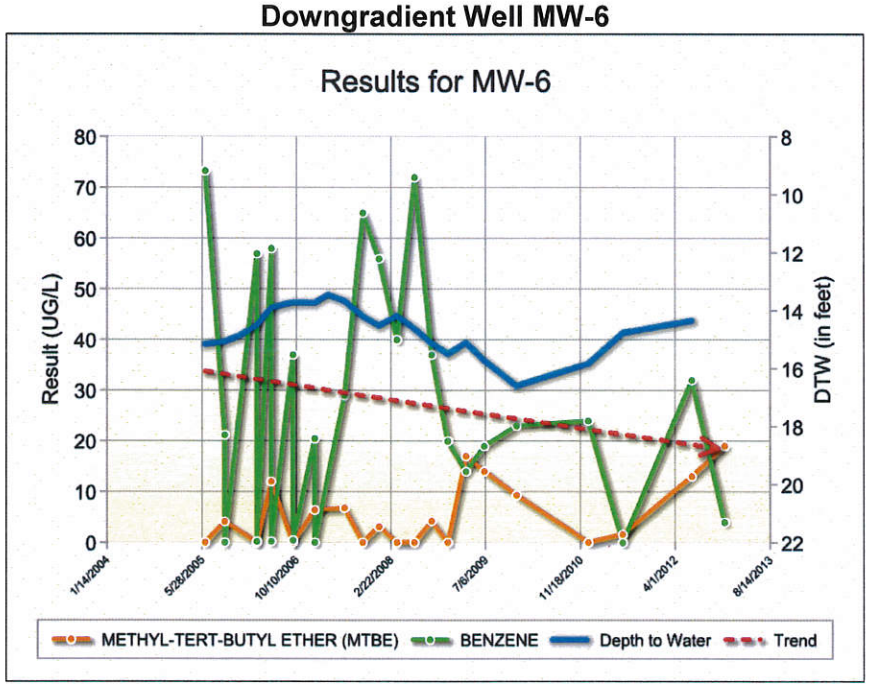
Source Area Well MW-1



Source Area Well MW-9



Downgradient Well MW-6



Evaluation of Current Risk

- Estimate of Hydrocarbon Mass in Soil: None reported.
- Soil/Groundwater tested for methyl tert-butyl ether (MTBE): Yes, see table above.
- Oxygen Concentrations in Soil Vapor: None reported.
- Plume Length: <250 feet long.
- Plume Stable or Decreasing: Yes.
- Contaminated Zone(s) Used for Drinking Water: No.
- Groundwater Specific Criteria: The case meets Policy Criterion 1 by Class 2. The contaminant plume that exceeds water quality objectives is less than 250 feet in length. There is no free product. The nearest water supply well or surface water body is greater than 1,000 feet from the defined plume boundary. The dissolved concentration of benzene is less than 3,000 µg/L, and the dissolved concentration of MTBE is less than 1,000 µg/L.
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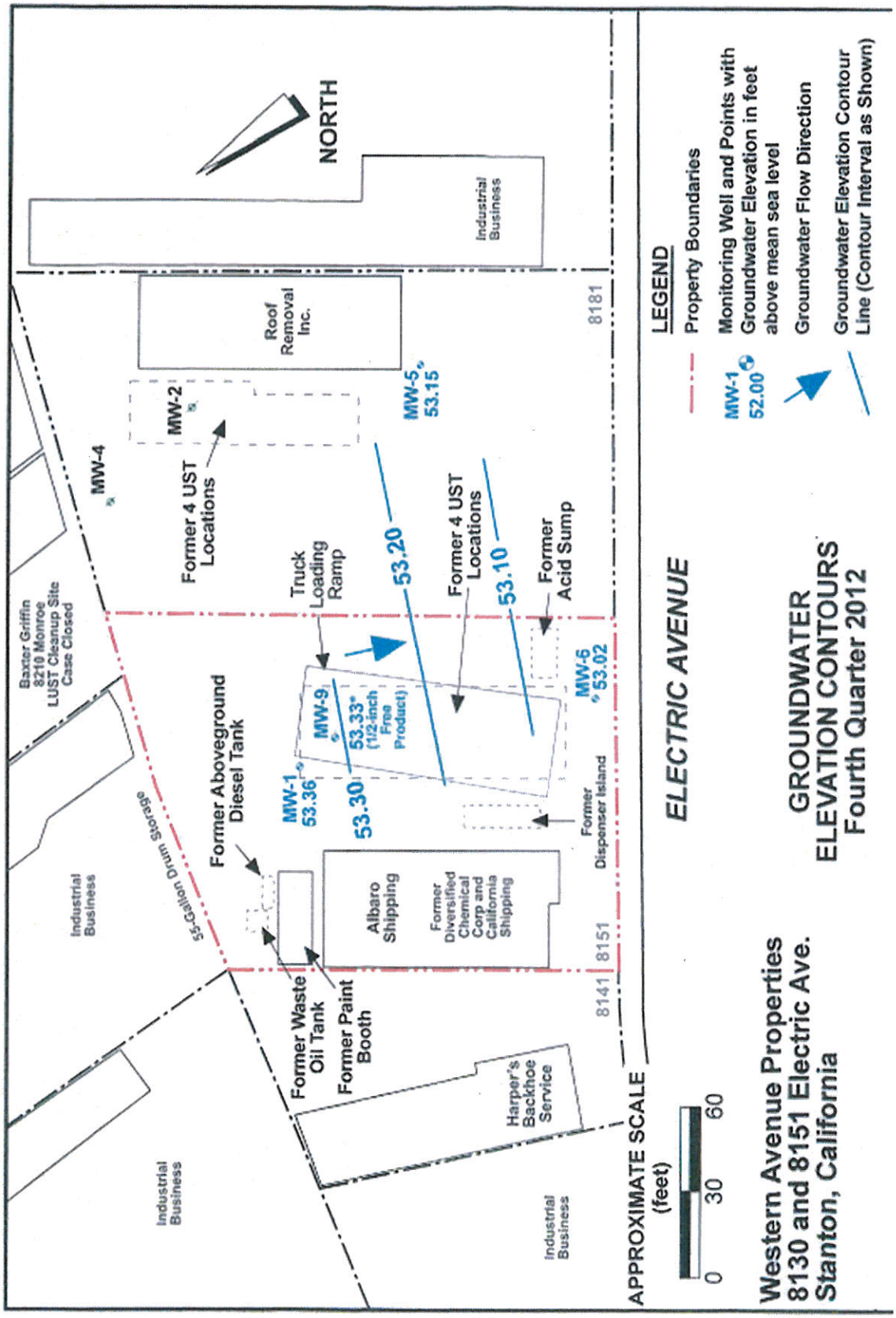
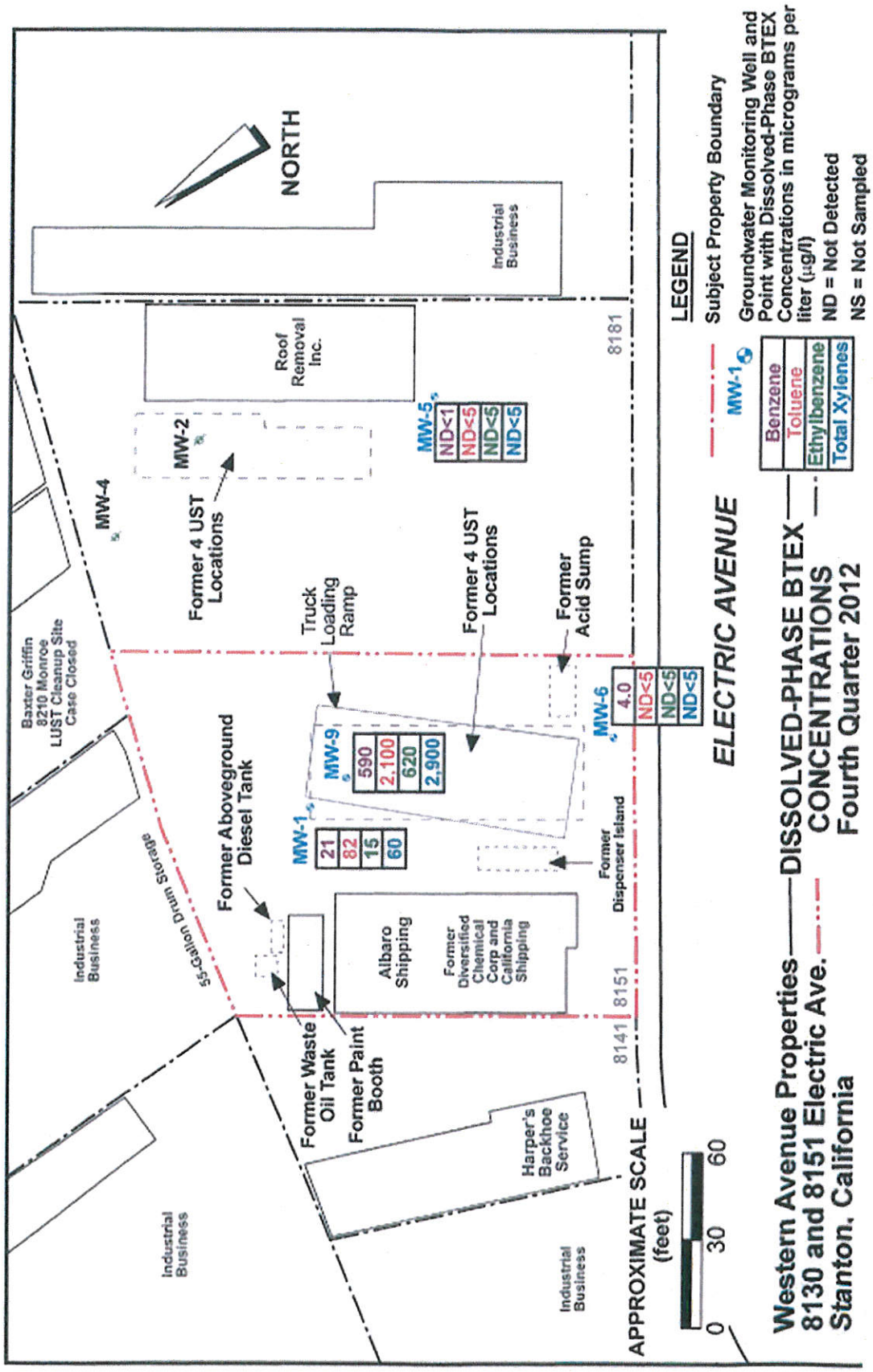

NORTH
Industrial Business
Roof Removal Inc.
8181
MW-2
MW-4
MW-5
53.15
Former 4 UST Locations
Truck Loading Ramp
53.20
Former 4 UST Locations
53.10
Former Acid Sump
MW-6
53.02
Baxter Griffin 8210 Monroe LUST Cleanup Site Case Closed
Former Aboveground Diesel Tank
MW-9
53.33'
(1/2-inch Free Product)
MW-1
53.36
53.30
55-Gallon Drum Storage
Former Dispenser Island
ELECTRIC AVENUE
Industrial Business
Albaro Shipping
Former Diversified Chemical Corp and California Shipping
8151
8141
Former Waste Oil Tank
Former Paint Booth
Harper's Backhoe Service
Industrial Business
Industrial Business
LEGEND
Property Boundaries
MW-1
52.00
Monitoring Well and Points with Groundwater Elevation in feet above mean sea level
Groundwater Flow Direction
Groundwater Elevation Contour Line (Contour Interval as Shown)
APPROXIMATE SCALE
(feet)
0
30
60
Western Avenue Properties
8130 and 8151 Electric Ave.
Stanton, California
GROUNDWATER
ELEVATION CONTOURS
Fourth Quarter 2012


NORTH
Industrial Business
Roof Removal Inc.
8181
MW-2
MW-4
Former 4 UST Locations
MW-5
ND<1
ND<5
ND<5
ND<5
Former 4 UST Locations
Truck Loading Ramp
Former Acid Sump
MW-6
4.0
ND<5
ND<5
ND<5
Baxter Griffin
8210 Monroe
LUST Cleanup Site
Case Closed
Former Aboveground Diesel Tank
MW-1
21
82
15
60
MW-9
590
2,100
620
2,900
Former Dispenser Island
ELECTRIC AVENUE
55-Gallon Drum Storage
Industrial Business
Albaro Shipping
Former Diversified Chemical Corp and California Shipping
8151
8141
Former Waste Oil Tank
Former Paint Booth
Harper's Backhoe Service
Industrial Business
Industrial Business
APPROXIMATE SCALE
(feet)
0
30
60
LEGEND
Subject Property Boundary
MW-1
Groundwater Monitoring Well and Point with Dissolved-Phase BTEX Concentrations in micrograms per liter (µg/l)
ND = Not Detected
NS = Not Sampled
Benzene
Toluene
Ethylbenzene
Total Xylenes
Western Avenue Properties——DISSOLVED-PHASE BTEX——
8130 and 8151 Electric Ave.——CONCENTRATIONS——
Stanton, California
Fourth Quarter 2012